Pansophy User Guide
Thomas Jefferson National Accelerator Facility
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Pansophy User Guide Table of Contents

Pansophy User Guide

Pansophy is a database driven, web-based application for the collection, control, and distribution of data in scientific environments. Pansophy can be used from any computer with an Internet connection and Netscape, Mozilla, or Internet Explorer.

Using **Travelers**, technicians can define processes, record data and store this process data for future use via the Internet (or company intranet). A traveler is a document used to define and control a process, and is used to gather data particular to a specific part. or assembly. Travelers are created by the staff member most familiar with the process or task, and are reviewed by four people involved in the project (a project scientist, project engineer, production supervisor, and a user reviewer, for example). Authors generate travelers using an MS-Word template, and drafts are saved into DocuShare for approval and release into Pansophy.

Features

In addition to the Traveler area, which is broken down into project sections and includes query functions, Pansophy also allows for recording and recalling of information more informally in a variety of areas. These include Logbooks, QC/QA, VTA Project, and a link to DocuShare for document cataloging and storage.

Pansophy Features are divided into four main sections:

1. **Travelers**

2. **Logbooks**

3. **QC/QA**

4. **DocuShare**

In addition to these four sections, there are several supplemental sections: On Call, Home, Help, an additional link to DocuShare, Contact Us and Administration Area. These sections will be discussed below. Additional information for those with administrative privileges can be found in the Programmer's Guide.

I. Sections Defined

1. **Travelers:** This menu item contains all travelers and traveler related documents, including attached files and Non-Conformance Reports (NCRs). Both new and completed travelers can be viewed, printed, edited and queried in this section. The Traveler area contains the following menus for data input and retrieval:
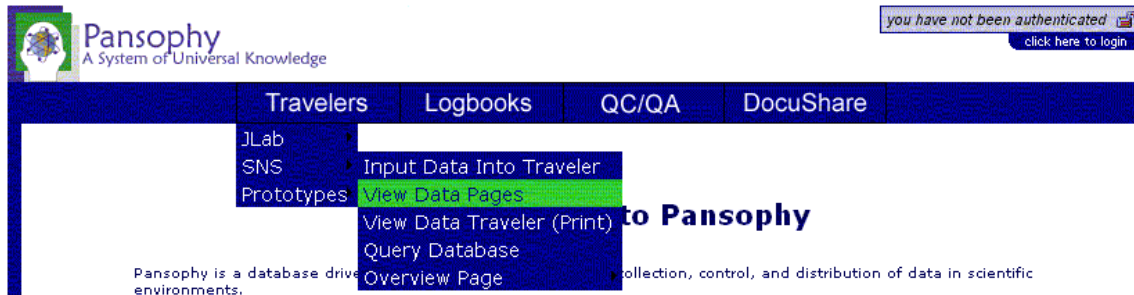
   a. **JLAB**
      i. **5 Cell VTA Data** – This section was constructed as a pilot project.
      ii. **Niobium Stock** – This section includes areas for recording receipt, withdrawal, return or closeout, total inventory and status of Niobium at Jefferson Lab.
      iii. **Misc. Travelers** – This section contains all general JLAB and other miscellaneous travelers. It includes areas to record data (input data), view data on screen and for printing, and data queries.
   b. **SNS -** This section contains all SNS travelers. It includes areas to record data (input data), view data on screen and for printing, and data queries.
   c. **Prototypes -** This section contains all CEBAF prototype and general JLAB travelers.. It includes areas to record data (input data), view data on screen and for printing, and data queries.

2. **Logbooks** – This section contains electronic logbooks for all groups active in the Test Lab. Logbooks are used for recording activities in the Test Lab that are not recorded in Travelers. Below are active logbooks currently in Pansophy:
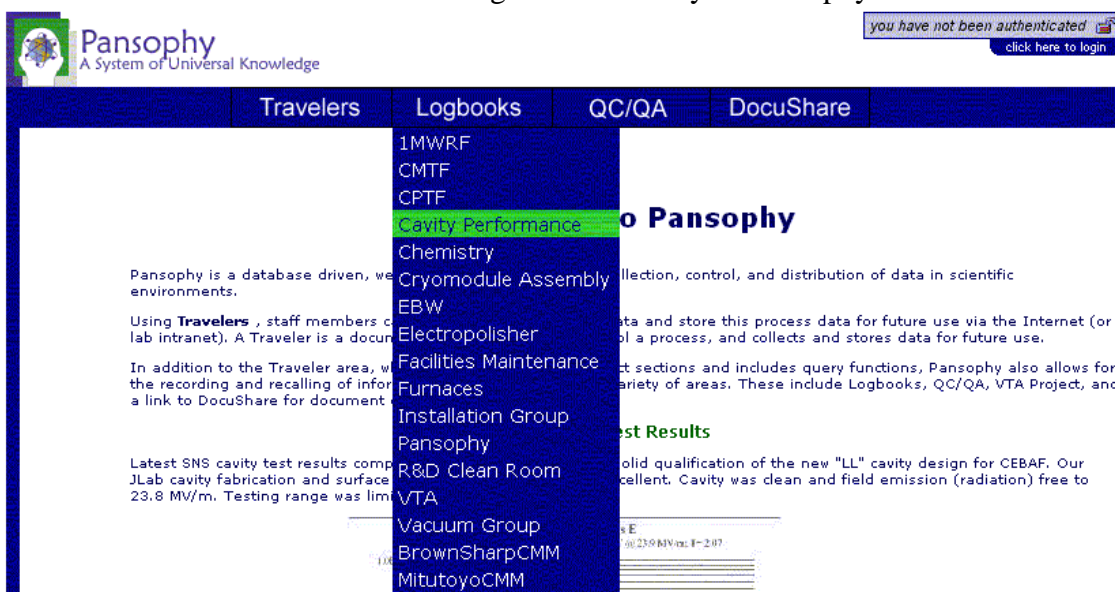
a. **1MWRF**– Status and notes on the operations, maintenance, and commissioning of the Test Lab's 1 MWatt 805MHz RF test stand

b. **CMTF**– Notes on operations of the Cryomodule Test Facility, including cryomodule test status, notes, and ancillary data

c. **CPTF**– Notes on operations of the Coupler Test Facility, including coupler test/conditioning status, notes, and ancillary data

d. **Cavity Performance**– Notes on performance of R&D and prototype cavities, including test data and notes, and cavity preparation/processing data

e. **Chemistry**– Status and notes on the operations and maintenance of the Test Lab's closed chemistry systems, R&D Chem room facilities, and acid neutralization systems

f. **Cryomodule Assembly**– Notes and data regarding the assembly of prototype cryomodules

g. **EBW**– Status and notes on the operations and maintenance of the Test Lab's Electron Beam Welder

h. **Electropolisher**– Status, notes, and ancillary data on the operations, maintenance, and commissioning of the Test Lab's cavity electropolishing system

i. **Facilities Maintenance**– Status and notes on the operations and maintenance of the assorted Test Lab facilities

j. **Furnaces**– Status and notes on the operations and maintenance of the Test Lab's high temperature vacuum furnaces

k. **Installation Group**– Notes on maintenance, service, and other activities performed by the Accelerator Division's Installation Group

l. **Pansophy**– Status and notes on the development and functionality of Pansophy and related systems (servers, DocuShare, etc.)

m. **R&D Cleanroom**– Status and notes on the operations, maintenance, and other activities taking place in the R&D Clean Room, such as SNS Coupler Assembly

n. **VTA**– Notes on operations of the Vertical Test Area, including dewar status and plans, maintenance activities, cavity tests, and ancillary data

o. **Vacuum Group**– Notes on maintenance, service, and other activities performed by the Accelerator Division's Vacuum Group

p. **BrownSharp CMM**– Status and notes on the operations, maintenance, and other activities involving the Brown & Sharp coordinate measuring machine located in rm. 146B, Test Lab

q. **Mitutoyo CMM**– Status and notes on the operations, maintenance, and other activities involving the Mitutoyo coordinate measuring machine located in the Survey room, Test Lab

3. **QC/QA –** This section is used to record ownership, scheduled maintenance, and instrument calibration for equipment in the Test Lab. Lab equipment can be tracked by location, model number, serial number, etc., and maintenance can be scheduled here as well. Text and measurements may be entered in the following areas:

a. **Instrument Calibration** – Look here for information regarding calibrations of Quality-Critical instrumentation used in the SRF Institute production and development activities.

b. **Cryomodule Maintenance Data Input and Queries** – Look here for the records of maintenance activities for CEBAF and FEL cryomodules.

c. **Vacuum Group Maintenance** – Look here for the records of maintenance activities for vacuum equipment owned and operated by the Vacuum Group.

4. **DocuShare** – Xerox DocuShare allows everyone in the Test Lab (and others with accounts on the system) to share documents, photographs, and drawings. Files may be uploaded into the appropriate areas, or downloaded for use on local computers. DocuShare sections that are directly accessible from Pansophy are:
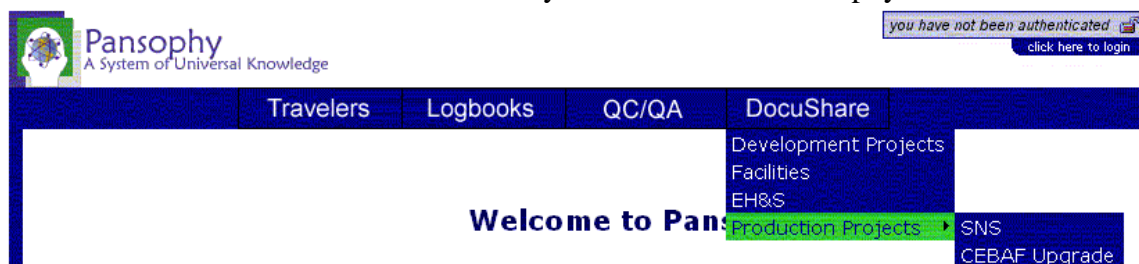
a. **Development Projects**
b. **Facilities**
c. **EH&S**
d. **SNS and CEBAF Upgrade (listed under Production Projects)**

II. Logging In and Using Pansophy

1) Login Process

To log in to Pansophy, simply click the Click here to log in button at the top right of your browser.

A pop-up window will appear requesting your username and password. Your username and password are the same as your CUE (Common User Environment) username and password.

In order to log out, simply press the Click here to logout button at the top right hand corner of your browser. To find out who is logged in to Pansophy, click the who am I tab.

2) Navigating Pansophy

Pansophy has been designed for easy navigation. Just one click takes you wherever you'd like to go. The fly-out menus at the top of the browser screen take you directly to any area in Pansophy. For instance, if you wish to view SNS travelers, you need only mouse over the Travelers menu and select the form of traveler from the SNS fly-out menu. You can also use the bottom navigation to get back to the home page ("Home"), to go to DocuShare, to download our Help file ("Help"), and to Contact Us.
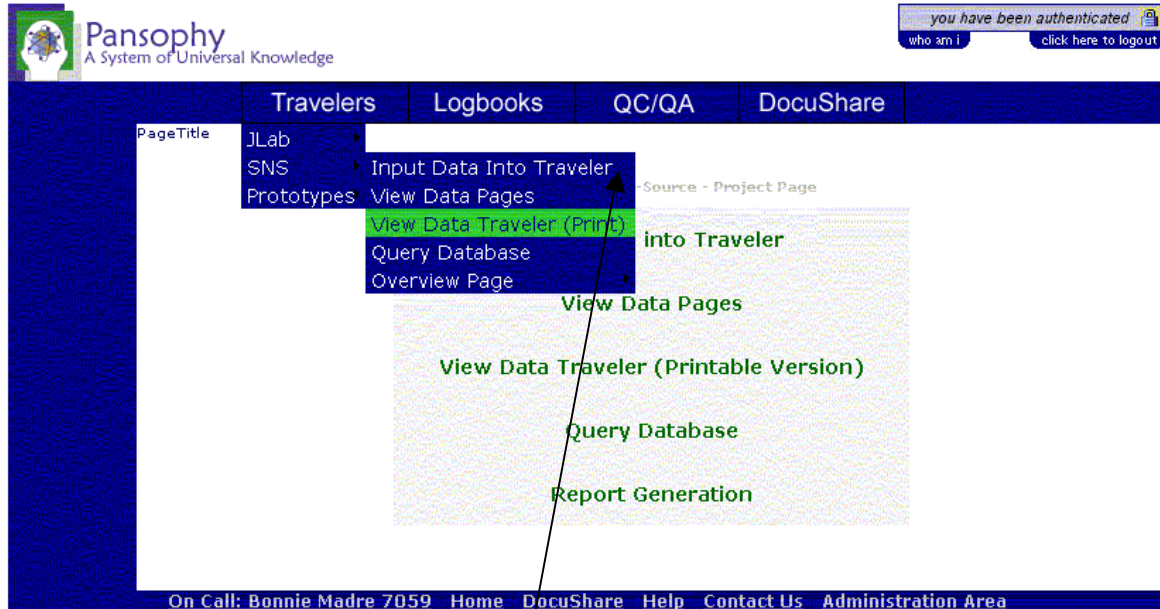
3) Entering Traveler Data

To begin entering data, select Input Data Into Traveler from the Travelers ➔ JLab/SNS/Prototypes menu. This action will take you to the data input screen, which displays a list of all travelers for the selected project. When the data input screen appears, select the name of the traveler you wish to fill out by scrolling, then clicking once with the mouse. You can also use the filtering area to narrow your choices.
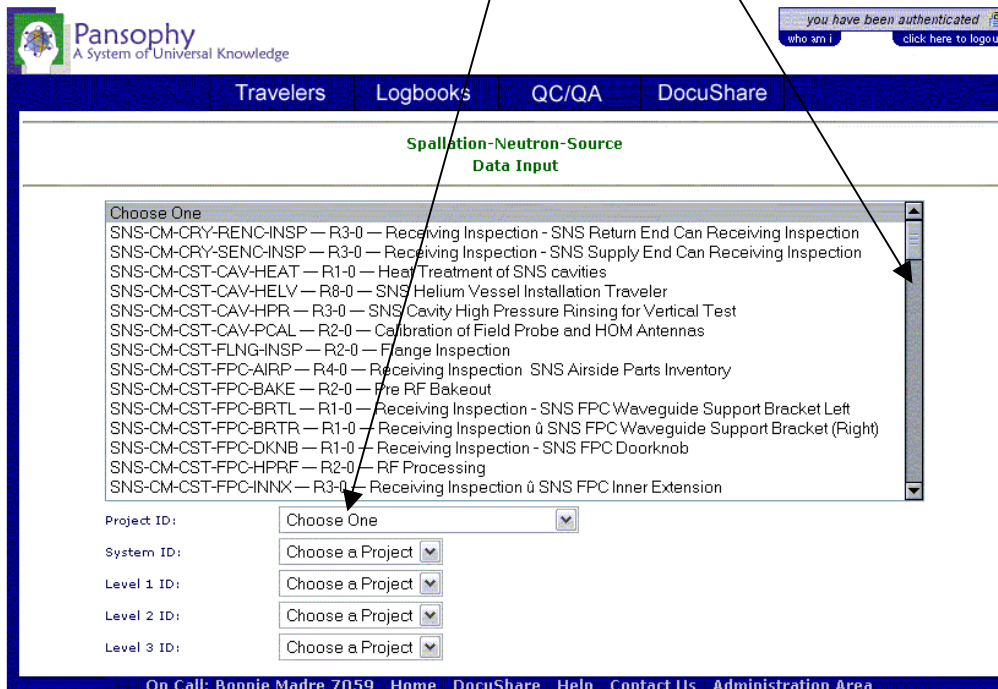
Selecting a traveler takes you to the cover page (Page:0) for that traveler. This page provides you with several options: Select Traveler, Page #, New, Next, and Last. Under these buttons, the green bar shows you the traveler ID, the revision number, the current page number, and the sequence number. When the sequence number is zero (as below), the traveler is in view mode and you cannot enter data.

These options allow you to fully utilize the Input Data area as follows:

- The Select Traveler pull-down menu allows you to select from a list of active (open but not completed) travelers.

- The Page # pull-down menu allows you to move from any page to any page within the selected traveler.

- The New button starts a new traveler. **Note: You cannot enter data into a traveler until you click the New button!**

- The Next and Last buttons take you to the next (or last) page in the traveler. Once you begin a new traveler, you will see the additional navigation buttons Previous and First.

➤ **How can I tell if I have an active traveler (a traveler ready to accept data)?**

The first page of a newly activated traveler looks like this:

A newly active (open) traveler will have a submit data to database button at the bottom of every page. It will also have a negative sequence number (indicating that the first page has yet to be submitted). **Note: You must click the submit data to database button to save your data. A new traveler will not get a sequence number until the first page is submitted to the database.**

When you select an active (open) traveler from the Select Traveler menu, it will look like this:

You will see the Page # pull down menu and the navigation buttons, then the green status bar, which contains the current traveler ID, the revision number of the current traveler, the current page number, and the sequence number. You are now ready to enter data.
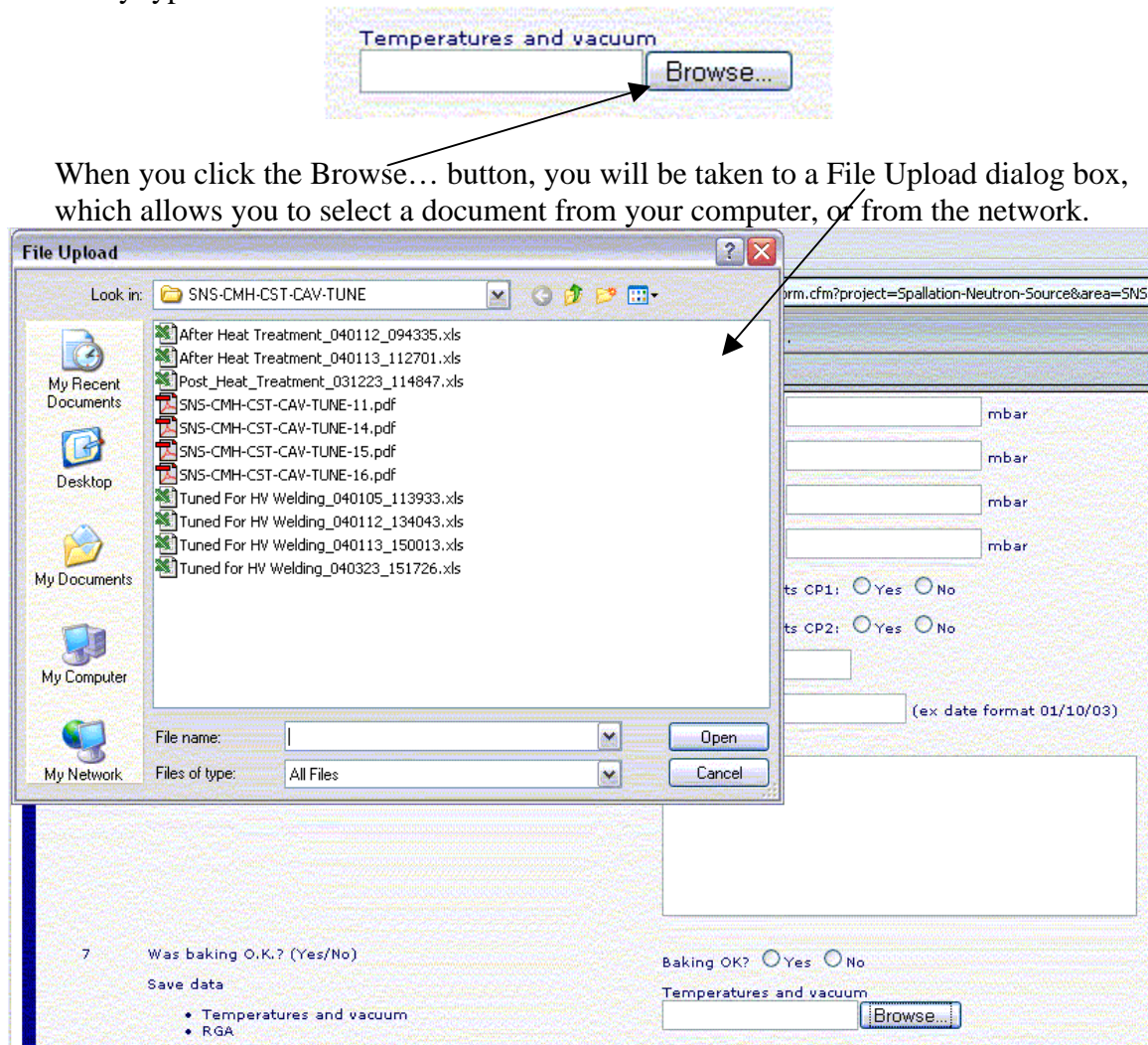
Don't forget the most important part: c**lick the submit data to database button on every page.** If you move on to the next page in the traveler without submitting the data, the data will be lost and will have to be reentered. Report problems with individual travelers (missing data collection boxes/areas, errors in the text or measurements) to the author of the traveler. The author's name (as well as the names of the people approving the traveler for use) are on page 0 of every traveler. If you encounter a technical problem (such as an error message in your browser), report the problem to the on-call Pansophy technician listed in the bottom navigation bar on each page.

4) Saving/Recording Data

Each data collection box in a traveler corresponds to a variable in the database. Your data is saved into the database via the submit data to database button at the bottom of each page. *You must press this button before moving to the next page or your data will be lost.*

5) Uploading Files

In travelers that have a File Upload area, you will be able to upload and store documents of any type in the database.

When you click the Browse… button, you will be taken to a File Upload dialog box, which allows you to select a document from your computer, or from the network.

Each File Upload area allows you to upload one document. If you upload a second document, the second document will replace (overwrite) the first document in the database. When uploading files, please note that you must **use letters and numbers only,** no symbols, no spaces. In place of a space, you may use a dash or an underscore. This rule is to allow the widest variety of browsers and systems to download and open your file successfully. Symbols other than underscores or dashes can cause your file to become unreadable by some users, rendering the data you collected useless.

6) Issuing NCRs

NCRs or Non-conformance Reports can be issued from any traveler by clicking the "NCR" button in the upper right-hand corner of the last page of your traveler.

You may also issue an NCR independently of a traveler by selecting PROJ-NCR from the Travelers ➔ JLab/SNS/Prototypes ➔ Input Data Into Traveler menu (where PROJ = JLAB, SNS, or REN). NCR forms work the same way as any other traveler form (see above for details on traveler forms), so please do not forget to click the submit data to database button when you are done entering data. Each time an NCR is issued, an email is sent to the engineer/author in charge of that traveler's processes.

7) Closing Travelers

All travelers should be closed once they have been completed to your satisfaction. To close a traveler, simply click the Yes radio button in answer to the "Close Traveler?" question in the lower right-hand corner of the last page of your traveler.

Once a traveler is closed, it cannot be altered, so be sure you have completed the traveler to your satisfaction before closing it.

8) Viewing Data

To view data page by page, select View Data Pages from the Travelers fly-out menu. You can view both open and closed travelers from this area by selecting from the list of available travelers on the Data View page, then choosing a traveler sequence number. The sequence number pull-down menu includes these helpful identifiers: sequence number, serial number/ID, NCR sequence number, and status (open (Op)/closed (Cl)). You can also navigate these pages by means of Page # and First/Last navigation buttons.

9) Printing Travelers

Travelers are best printed from the View Data Traveler (Print) area.
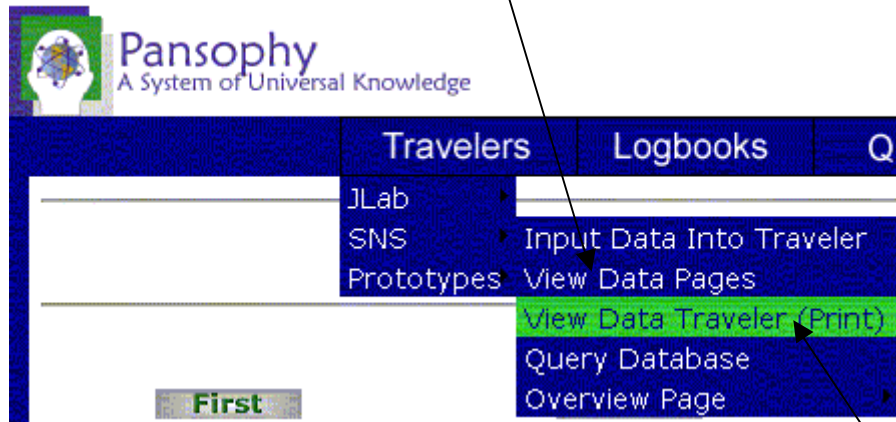
From the Travelers menu, go to the project area, and select View Data Traveler (Print) from the fly-out menu. You will note that in this section, you see the whole traveler at once, instead of viewing it page by page as in You can view and print both open and closed travelers from this area by selecting from the list of available travelers on the Data Print page, then choosing a traveler sequence number. The sequence number pull-down menu includes these helpful identifiers: sequence number, serial number/ID, NCR sequence number, and status (open (Op)/closed (Cl)). Once you have selected the traveler and specified the sequence number, use the print button on your browser to print the traveler. (See below for a sample Select Traveler pull-down menu.)

10) Retrieving Data

There are two ways to retrieve data from the database. One is to use the Query Database menu item. The other is to use the Overview Page menu item (only available for certain projects at this time). These items are discussed in the next section, How to Use Query Database Functions.

➢ **How can I tell the difference between the read-only modes (View/Print) and an active traveler?**

Active travelers and those in the read-only modes vary in several ways. First, the View/Print modes lack the submit data to database button, and show both open and closed travelers in the pull-down menus:
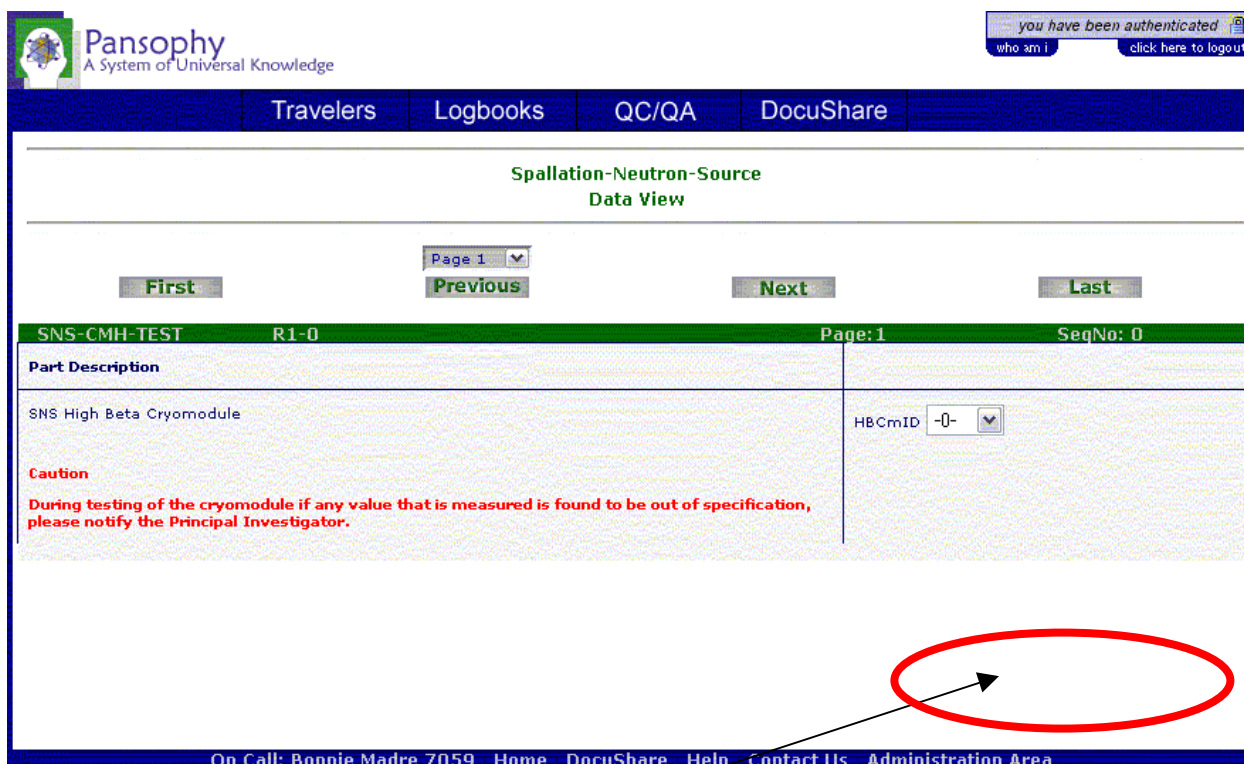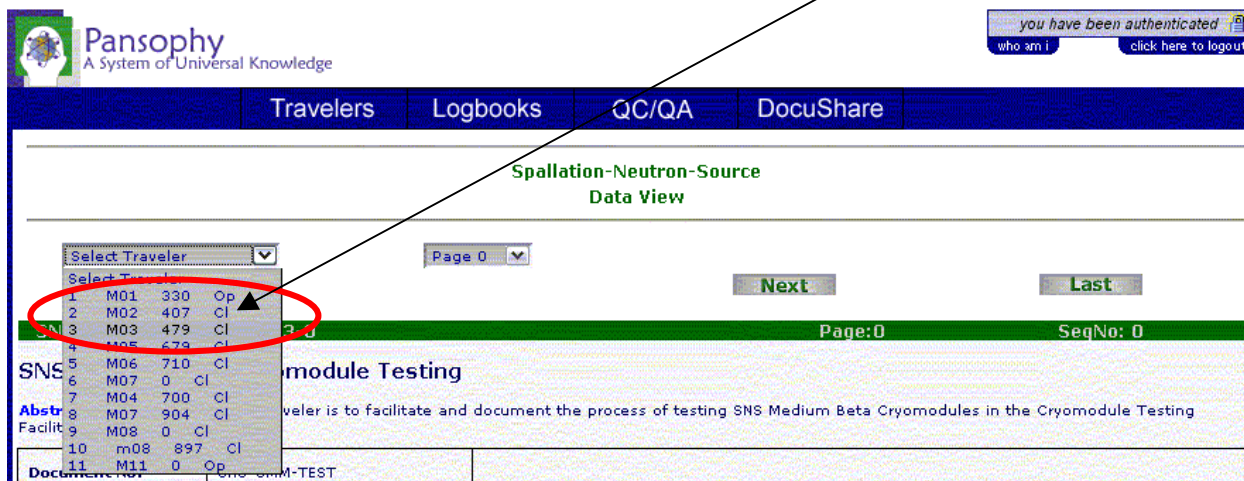
Tip: If you do not see the submit to database button at the bottom of the page, you cannot save entered data.

III. How to Use Query Database Functions

There are five distinct sections in the query menu, accessed through the panel on the left side of your browser window.

These include:

1. Serial Number, Cavity ID and Vendor ID searches
2. Searching specific labels (with or without variables specified)
3. Customized searches of multiple variables (fully user-defined queries, and cross-(traveler) revision searches
4. Listing specific travelers (open, closed, or all)
5. Listing only NCRs (open, closed, or all)

1. Serial Number, Cavity ID, and Vendor ID Searches

The Serial Number, Cavity ID, and Vendor ID input fields can accept letters and numbers (case insensitive), and will bring up a list of travelers containing fields that match your input. The buttons match their traveler labels exactly, and will match both partial and complete values entered into the data input field.

The travelers listed in the results are links, and will take you to the document containing your search criteria.

2. Searching Specific Labels (with or without variables specified)

If you need to find data specific to a certain label, and just want to find travelers that contain this label, then use the second section. All results are active links.

You can search this section with or without a specific variable entered. Entries are case insensitive.

3. Customized Searches of Multiple Variables (fully user-defined queries, and cross-[traveler] revision searches)

a) Use the Variable Grid button to generate Reports showing all variables in a traveler can be in the third section by clicking the.
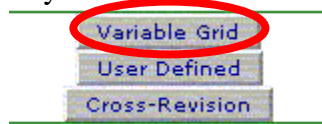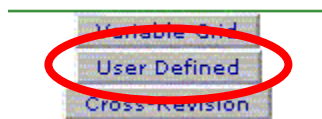

After clicking the button, select a traveler from the list provided, then select a revision. Page 1 is automatically displayed, however, you can jump to any page by choosing a page number from the Select Page menu.

Clicking on the sequence number takes you to the traveler's Print Data view, allowing you to print or save the document. Clicking the Excel Report button imports displayed data into an Excel spreadsheet for further manipulation.

b) Use the User Defined Query button to search throughout a traveler for certain variables.

After clicking the button, select a traveler from the list provided, then select a revision, as you would for the Variable Grid search. You will then see a tabular list of all variables on a page-by-page basis. Use the check boxes to select which variables you wish to view, and click Submit to bring up a list of the selected variables.

After clicking Submit you will see a screen displaying the page variable (p1text1, p6option1, etc.), label (CavityID, Comments, etc.), variable type (varchar, float, etc.), the operator (All/=/Like, All/</>/=, or All/=), and operand (input box/pull down to narrow your search). You may or may not wish to select any operators or operands. If you do nothing, all data in the selected fields will be displayed on the next page. Click Submit to move to the data display page. **Tip: the operand must match the format of var_type.**

The sequence numbers are live links, as with the Variable Grid search, and the results from your query can also be imported into Excel.

c) Use the Cross-Revision button to obtain information from travelers across revisions, (select the traveler from the list provided, as in the previous two searches).
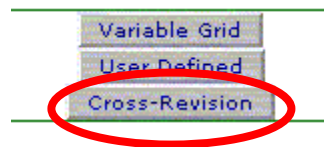
Once you select the traveler, you will be able to select from a list of variables contained in each traveler revision. This list is formatted similarly to the user defined query page, and requires you to select variables in tabular format, as below.

Click the Submit button to activate your search.

After clicking Submit you will see a screen displaying the revision number (R1-0, R2-0, etc.), page variable (p1text1, p6option1, etc.), label (CavityID, Comments, etc.), variable type (varchar, float, etc.), the operator (All/=/Like, All/</>/=, or All/=), and operand (input boxes and/or pull down menus to narrow your search). You may or may not wish to select any operators or operands. If you do nothing, all data in the selected fields will be displayed on the next page. Click Submit to move to the data display page.

Cross Revision Query - (SNS-NCR)					
rev_no	page_var	label	var_type	Operator	Operand
R1-0	partdesc	part description	varchar	ALL	
R1-0	serialno	serial no	varchar	ALL	
R2-0	p1text1	part description	varchar	ALL	
R2-0	p1text2	SerialNo	varchar	ALL	
R3-0	p1text1	Part Description	varchar	ALL	
R3-0	p1text2	DwgNo	varchar	ALL	
R3-0	p1text3	SerialNo	varchar	ALL	
R4-0	p1text1	Part Description	varchar	ALL	
R4-0	p1text2	DwgNo	varchar	ALL	
R4-0	p1text3	SerialNo	varchar	ALL	

Submit

All data requested is displayed in tabular format. The sequence numbers are live links, as with the Variable Grid and User Defined searches. Each revision's data is displayed in its own table.

Revision R1		
RevNo	SeqNo	serial no
QUERY: SELECT DISTINCT snsncrr1.serialno, snsncrr1.rev_no, snsncrr1.traveler_seq_num FROM snsncrr1 WHERE 1 = 1 AND snsncrr1.obs=' ' AND snsncrr1.serialno = 01 ORDER BY snsncrr1.traveler_seq_num		

Generate Excel Report

Revision R2		
RevNo	SeqNo	SerialNo
QUERY: SELECT DISTINCT snsncrr2.p1text2, snsncrr2.rev_no, snsncrr2.traveler_seq_num FROM snsncrr2 WHERE 1 = 1 AND snsncrr2.obs=' ' AND snsncrr2.p1text2 = 01 ORDER BY snsncrr2.traveler_seq_num		

Generate Excel Report

Revision R3		
RevNo	SeqNo	SerialNo
R3-0	91	01
R3-0	96	01
R3-0	119	01
R3-0	172	01
R3-0	178	01
R3-0	183	01
R3-0	201	01
R3-0	206	01
R3-0	346	01
R3-0	393	01
QUERY: SELECT DISTINCT snsncrr3_page1.p1text3, snsncrr3_page1.rev_no, snsncrr3_page1.traveler_seq_num FROM snsncrr3_page1 WHERE 1 = 1 AND snsncrr3_page1.obs=' ' AND snsncrr3_page1.p1text3 = 01 ORDER BY snsncrr3_page1.traveler_seq_num		

Generate Excel Report

Revision R4		
RevNo	SeqNo	SerialNo
R4-0	495	01
R4-0	513	01
R4-0	517	01
R4-0	708	01
R4-0	765	01
QUERY: SELECT DISTINCT snsncrr4_page1.p1text3, snsncrr4_page1.rev_no, snsncrr4_page1.traveler_seq_num FROM snsncrr4_page1 WHERE 1 = 1 AND snsncrr4_page1.obs=' ' AND snsncrr4_page1.p1text3 = 01 ORDER BY snsncrr4_page1.traveler_seq_num		

Generate Excel Report

Your query is described fully in the gray bar at the bottom of the table, and the results of your query can be imported into Excel via the Generate Excel Report button.

4. Listing Specific Travelers (open, closed, or all)

The List Travelers area allows you to list open, closed, or both open and closed travelers of the selected type. Use the pull-down menus to select your traveler, and the radio buttons to select open, closed, or all, then click List Travelers to obtain a list of all travelers matching your criteria. The travelers in this list are live links to either Data Input mode (for open travelers) or the Data Print mode (for closed travelers).
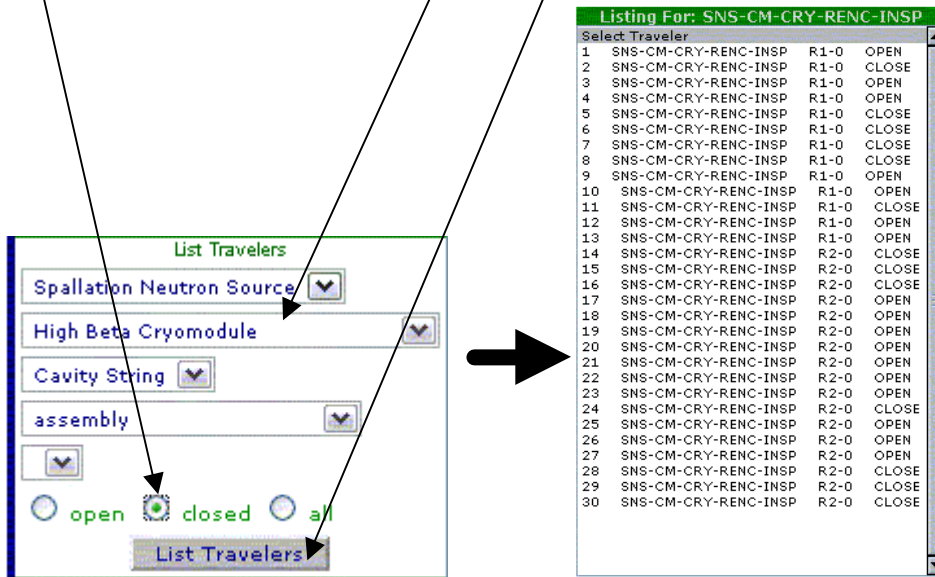
5. Listing NCRs Only (open, closed, or all)

The List NCRs area allows you to list open, closed, or both open and closed NCRs. Use the radio buttons to select open, closed, or all, then click List NCRs.

The result of clicking List NCRs is the same as in the List Travelers example above.

IV. How to Use the Overview Page Function

The overview page is the currently available only for SNS.
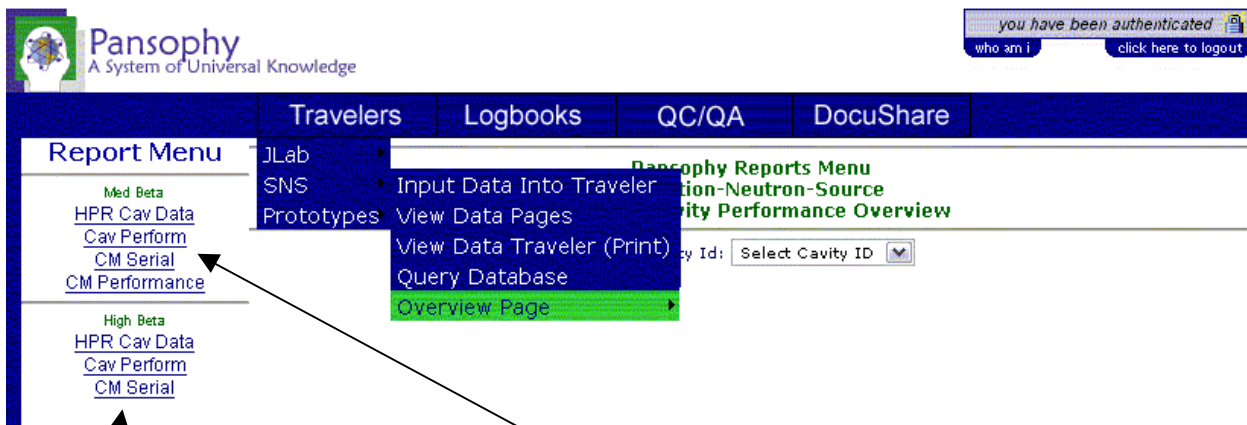
The Overview area contains several report functions. These include:

1. HPR Cav Data: High Pressure Rinse Cavity Data Report
2. Cav Perform: Cavity Performance Report
3. CM Serial: Cryomodule Serial Number Report
4. CM Performance: Cryomodule Performance Report

These functions are available exclusively for the SNS project, and include both Medium and High Beta reports.

1. HPR Cav Data: High Pressure Rinse Cavity Data Report

The HPR Cav Data page (for both Medium and High Beta) presents the user with three tables of data. The first table contains rinse cycle information for each sequence number; the second displays the Emax and Q@Emax values for each sequence number; and the third table displays E@Q and FE onset data for each sequence number. Additionally the first table provides a generate excel button which will place the rinse cycle information into an excel spreadsheet.

Pansophy Reports Menu
Spallation-Neutron-Source
MB HPR Data

RevNo	SeqNum	Date	CavID	1st Rinse	1st Cycle	Start 1st Cycle	End 1st Cycle	2nd Cycle	Start 2nd Cycle	End 2nd Cycle
R3-0	23	2004-02-09 00:00:00.0	MB31	0.15	3.16	2.53	1.87	0	0	0
R3-0	24	2004-02-10 00:00:00.0	MB31	0.1	2.49	2.39	2.41	2.04	1.8	2.23
R3-0	25	2004-02-10 00:00:00.0	MB32	0.1	2.19	1.89	1.96	2.17	1.6	1.76
R3-0	26	2004-02-11 00:00:00.0	MB32	0.17	2.21	2.32	2	1.97	1.66	2.04
R3-0	27	2004-02-11 00:00:00.0	MB30	0.17	2.08	2.17	2.09	2.14	1.72	1.83
R3-0	28	2004-02-12 00:00:00.0	MB30	0.1	2.02	2.01	1.88	1.86	1.59	1.8
R3-0	36	2004-02-19 00:00:00.0	MB34	0.2	103.76	26.95	27.65	0.92	0.93	0.79
R3-0	37	2004-02-20 00:00:00.0	MB34	0.1	0.92	0.91	0.86	0.81	0.74	0.84
R3-0	43	2004-02-21 00:00:00.0	MB35	0.05	0.87	0.96	0.79	0.8	0.8	0.78
R3-0	44	2004-02-22 00:00:00.0	MB35	0.06	0.98	1.03	0.9	0.86	0.9	0.81

[Excel Report]

Sample 1: Rinse cycle information for each sequence number with Excel Report button

SeqNum	CavID	Date	Emax	Q@Emax
18	MB-14	03/19/03	12	4500000000
29	MB-15	05/20/03	14.14	4000000000
17	MB-16	03/19/03	7	9800000000
20	MB-16	03/28/03	13	5000000000
23	MB-17	03/29/03	11.5	3000000000
21	MB-17	03/29/03	11.5	3000000000
35	MB-20	06/09/03	17.6	2500000000
44	MB-21	07/15/03	8.16	1230000000
37	MB-22	06/13/03	13.7	3490000000
4	MB04	01/17/03	0	0
3	MB04	01/11/03	7.6	2000000000
6	MB04	01/23/03	0	0
5	MB04	01/13/03	7.6	2000000000
7	MB09	01/30/03	2.6	1000000000
10	MB09	02/07/03	17.5	3800000000
27	MB10b	05/06/03	10.2	7920000000
28	MB11	05/16/03	15	3000000000
9	MB11	02/06/03	16.3	4000000000
8	MB12	02/01/03	16.5	4000000000
30	MB13	05/20/03	9.47	2500000000
25	MB13	04/22/03	7.62	2050000000
36	MB19	06/11/03	12.86	4320000000
48	MB24	08/22/03	15.85	3100000000
34	mb01	11/21/02	17	4000000000
31	mb01	11/21/02	17	4000000000
32	mb02	11/24/02	17	3000000000
47	mb03c	08/18/03	15.6	2460000000
12	mb04	02/20/03	15	4200000000
11	mb04	02/19/03	15.2	4300000000
2	mb04	01/09/03	0	0
38	mb05	01/13/03	12.2	3920000000
33	mb06	12/09/02	14.5	7000000000
16	mb07	01/17/03	14.5	3590000000
39	mb08	12/20/02	11	5300000000
15	mb11	02/22/03	9.01	2330000000
14	mb11	03/07/03	6.11	2250000000
19	mb13	03/25/03	10	1500000000
22	mb18	04/08/03	12.25	1800000000
43	mb23	07/11/03	13.4	3570000000
42	mb24	07/14/03	9.7204	2973700000
45	mb24a	08/07/03	5.41	1920000000
46	mb25	08/12/03	13.4	3530000000
56	mb26	10/28/03	13.4	4000000000
55	mb28	10/31/03	17	3300000000

Sample 2: Emax and Q@Emax values for each sequence number

SeqNum	CavID	Date	E@Q	FEonset
57	MB21	11/05/03	14.94	10
59	MB27	11/12/03	18	11
58	MB29	11/07/03	15	10
60	MB30	11/13/03	15.9	12
62	MB31	12/05/03	12.35	7.5
61	MB31	11/22/03	8.3	5
63	MB32	12/07/03	18.3	10
64	MB33	12/15/03	19	16.5
65	MB34	12/17/03	17.94	10.8
66	MB35	01/08/04	18	12.47

Sample 3: E@Q and FE onset data for each sequence number

2. Cav Perform: Cavity Performance Report

The Cavity Performance report displays a table of performance data. The link jumps to a list of Cavity IDs, enabling you to select the individual Cavity you wish to view.

Pansophy Reports Menu
Spallation-Neutron-Source
Med Beta Cavity Performance Overview

Select Cavity Id: [Select Cavity ID ▼]

Select Cavity ID
1 -- 99999
2 -- mb04
3 -- MB04
4 -- MB04
5 -- MB04
6 -- MB04
7 -- MB09
8 -- MB12
9 -- MB11
10 -- MB09
11 -- mb04
12 -- mb04
13 -- hb01
14 -- mb11
15 -- mb11
16 -- mb07
17 -- MB-16
18 -- MB-14
19 -- mb13

Once you select a Cavity ID, you are presented with a table of performance data. The Raw and Processed Data files are listed at the bottom of the table. These are links and will display the data upon selection.

Pansophy Reports Menu
Spallation-Neutron-Source
Med Beta Cavity Performance Overview

Select Cavity Id: [2 -- mb04 ▼]

Traveler Sequence Number: 2
Cavity Id: mb04

Cavity Id	mb04
Helium Vessel	☑
Dewar Number	8
Top Plate Id	0
Cavity Vacuum	0
Dewar Pressure	27
Qext	2.09E+012
Qext Error	7.9
Emax	0
QEmax	0
EQo5	0
FEOnset	0
Radmax	0
Q2Mv	0
Q10Mv	0
He Processing	☐
Cavity Meets Specs	☐
RfRawData	mb04.txt
RfProcessedData	mb04.txt
QvsEData	MB04QvsE.doc
RadvsEData	

3. CM Serial: Cryomodule Serial Number Report

The Cryomodule Serial Number Report displays all traveler sequence numbers and serial numbers related to the production of the selected cryomodule. The link jumps to a list of Cryomodule IDs, enabling you to select the individual Cryomodule you wish to view.

Once you select a Cryomodule ID, you will be presented with a listing of all traveler sequence numbers and serial numbers related to the production of the selected cryomodule.

Pansophy Reports Menu
SNS
MB Serial Number Overview Page

Select Cryomodule Id: 6 -- M-3

CRYOMODULE ID:	M-3		
SNS-CMM-CST-ASSY:	6		
	SE	MID	RE
Cavity Id	MB-12	MB-09	MB-04
Coupler Id	02E021	02E018	02E020
Beamline Valve	482XX-XE01-ACB1/0022		482XX-XE01-ACB1/0021
OUTC			
WIND			
VG1			
VG2			
SNS-CM-CST-FPC-BAKE			
Helium Vessel	AH,AL,AK	J-84-10-1-BE	AE
SNS-CM-CST-CAV-HELV	9	6	14

Sample 4: Partial page of Serial Number Overview results

This information is based on the packet of information presented in paper format to SNS as part of the production project. Each sequence number is a link to the listed traveler. An asterisk (*) denotes the traveler has not yet been closed. Links (underlined numbers) will open the listed traveler in Data Input mode (if open) and Data View (if closed). A sequence number within parenthesis (nnn) denotes an NCR sequence number.

4. CM Performance: Cryomodule Performance Report

The Cryomodule Performance Report displays an overview of each cavity's performance parameters in a given cryomodule. Selecting the CM Performance link takes you to a list of Cryomodule IDs, enabling you to select the individual Cryomodule you wish to view.

Pansophy Reports Menu
SNS
Cryomodule Performance Overview Page

Select Cryomodule Id: Select Cryomodule ID ▼
Select Cryomodule ID
1 -- M01
2 -- M02
3 -- M03
4 -- M05
5 -- M06
6 -- M07
7 -- M04
8 -- M07
9 -- M08
10 -- m08
11 -- M11

Once you select a Cryomodule ID, you will be presented with cryomodule test results above a tabular list of the cryomodule's cavities and their specifications.

Pansophy Reports Menu
SNS
Cryomodule Performance Overview Page

Select Cryomodule Id: 4 -- M05

Cryomodule Id: M05   Seq Number: 4   Revision: R2-0

Start Beamline Vacuum: 1.43e-8
End Beamline Vacuum: 1.4e-10
Static Heat Load: 13.4
Insulating Vacuum: 0

	Cavity 1	Cavity 2	Cavity 3
Cavity Id	MB10	MB11	MB18
FPCV	FPCV 012	FPCV 011	FPCV 014
FPCA	Not available	Not available	Not available
Warm Freq	804.0525	804.05125	804.08125
Freq	804.999995	804.999813	805.00007
Qext FPC	8.22e5	1.32e6	6.52e5
HOM Low Power Qext 1	1.48e15	1.44e13	5.43E12
HOM Low Power Qext 2	1.87e12	4.43E12	
High Power Qext	8.7e5	6.22e5	5.57e5
QFP	1.65e12	1.62e12	1.45e12
HOM High Power Qext 1	2.00e14, 10.39% error	1.75e13	7.66e12, 10.3% error
HOM High Power Qext 2	8.95e12, 10.91% error	1.81e12	
Emax	13.3	14.5	13
Limit	quench	quench	beamline vacuum
Emax Op	12.3	13.5	12
FE Onset	6.6	6.7	7.5
Qo	8.4e9	6.5e9	6e9
Eacc Qo5	10.8	10.4	10.2
Coupler Vacuum	2.2e-10	1.6e-10	4.2e-9

V. How to Use Logbooks

Logbooks are used throughout the lab (see section on logbooks above for descriptions of all logbook areas), and should be accessed and filled out regularly to capture the day-to-day workings of your lab environment.

The logbook interface allows you to post short text messages and upload documents of any type to the group you select from the Logbook menu (in this case, Facilities Maintenance), and post the same information to any other logbook by checking the boxes above the Reset/Post Entry buttons. Your JLab ID appears above the first input box.

Enter keywords and text in the input boxes on the left side of the screen. Text is limited to 1500 characters, but attachments can be added to support your entry. In order to post your entry, you must click the Post Entry button. If you wish to clear the form, press Reset Form.

You can also search any logbook from this interface using QuickSearch. With QuickSearch, you can search by general date (today, yesterday, past seven days, past thirty days), keywords, text, specific date (after or before), or logged by. The QuickSearch function searches the current logbook only, unless you check one or more box(es) above the Search button.

The browse and attach file buttons work similarly to the traveler Upload File area, except you can upload as many files as necessary.

Don't forget to click Post Entry when you have completed your log entry. Clicking Post Entry returns a blank form as above, with the words Entry Posted in the upper left-hand corner.

VI. How to Use the QC/QA Area

1. Using Cryomodule Maintenance Data Input and Queries

The Cryomodule Maintenance area has two distinct parts: **Data Input** records maintenance activities for CEBAF and FEL cryomodules; **Query** allows you to search for maintenance records for CEBAF and FEL cryomodules.

Data Input:

The Cryomodule Maintenance Data Input area has nine fields. The first two, Date Entered and Entered By are automatically filled in (though you can change the date if necessary), The Cryomodule Serial Number input is required before you can submit this form to the database.

The next field, Location allows you to choose the region of the accelerator or FEL, the appropriate choices for zones will appear in the companion window. Hold down the <Ctrl> key and click to choose multiple zones, use <Shift> and click to select all.

The Cavities input area allows you to select all cavities, or choose individual cavities involved (if any). In the System field, the available systems, based on your Group Leader's input, are listed in a pull-down menu. If you do not see the system you are looking for, there will always be an "Other" choice, which you can explain in the Comment field. You can enter a detailed description of the work (up to 1800 characters), using. If your explanation needs more space, you can use the File Upload area to add a Word document as an attachment. You can also use this area for any other document types. At this time, the form allows only one attachment. The last field, Comment, is 265 characters so you need to be brief and concise. Finally, you must click the Submit to Database button to save your data.

Query:

The Cryomodule Maintenance Query area has 16 criteria from which you may choose to narrow your query. These include pull-down menus for Record Number, Date Entered, Entered By, CM Serial Number, Location, and System. The data populating these pull-down menus are values that have been entered into the database in a maintenance report (see above for Data Input).

Use the check boxes to look for records in which indicated cavities are specified. Text typed into the Description or Comment text boxes will look for those words in those fields (these areas are NOT case-sensitive). If you leave all fields blank or un-selected, you will recall all entries in the Cryomodule Maintenance database.

Results of a search will look something like this:

Clicking on the record number will take you to a detail page showing the entire record. Use the Back button on your browsers to get back to the original result list to see another complete record.

As always, if you encounter an error, page the on-call technician.

2. Instrument Calibration

The Instrument Calibration area has a New Instrument link and three pull-down menus, Manufacturer Information, Calibrator Information, and Custodian.
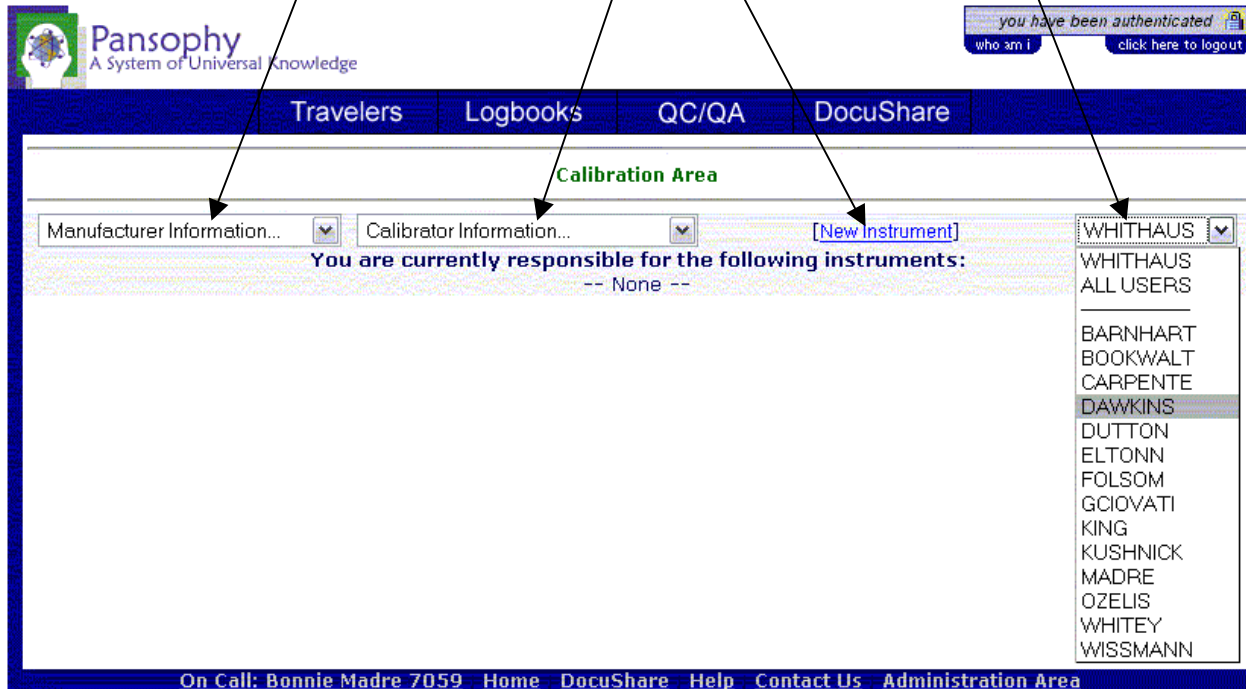
The three pull-down menus provide information about the manufacturers, calibrators, and custodians that are in the database, as well as the instruments relevant to each. If you choose a manufacturer, you will see the information about the manufacturer, as well as a list of instruments made by them. If you choose a calibrator, you will get information about the calibrator as well as instruments that they have calibrated. If you look at the custodians, they will see which instruments they own and a summary of the status of those instruments. By default the page comes up with a list of the instruments that the logged-in user owns.

The New Instrument link takes you to the following page, which will allow you to add new instruments, new manufacturers, and/or new calibrators:

The pull-down menus list available instrument types, manufacturers, and calibrators. New instruments, manufacturers and calibrators can be added by selecting "Other" from the pull-down menus. To further customize and identify your instrument, use the Model Number, Serial Number, and JLab Tag Number input boxes. Use the pull-down menus to customize the Initial Calibration Date, and enter a number in the Calibration Span (days) input box to indicate how many days should elapse between calibrations). Lastly, select a priority from the Calibration Priority pull-down menu and click Submit to add your information to the database.

If you select "Other" for either type, manufacturer or calibrator, you will be asked to provide details for each one.

Clicking Submit adds the item to the database and to the appropriate pull-down menu, in this case, Instrument Type.

Once you choose a manufacturer, calibrator or custodian from the Calibration Area pull-down menus, you will see a listing of all items in the selected category. Click on the view link to see details about the instrument, its current status and its calibration history.

If you own the instrument, you will see a list of links to actions that can be taken. If you do not own the instrument you can click to return to the original list (Return to List), view a cost analysis of calibration (View Cost Analysis) or email the owner of the instrument (Email Owner).

You have many more options as the owner of an instrument. For instance, after clicking on a "view" link, you can request a calibration. The Calibration Custodian will be notified that the calibration has been requested and will send it off for calibration and receive it when it comes back. (Note: You are responsible for putting the instrument in the proper area for retrieval by the Calibration Custodian.) You can then complete the calibration on that "view" page. You can also cancel the calibration. In addition, on the Instrument Information page, you can change the number of days between calibrations (calibration span), change the location of the instrument, add a picture to the record, upload a file, invite someone else to take ownership of your instrument, view the cost analysis or delete the instrument.

➢ **If I am no longer responsible for a given instrument, how do I transfer ownership?**

To attempt to transfer the ownership duties to another custodian, you need to click on Transfer Ownership Duties on the Instrument Information page, and type the JLab ID of the person to whom you are transfer the instrument. The system will send that person an email and you will see the message below.

An e-mail has been sent to <USER>@jlab.org.
Once confirmed, the user will become the custodian of the instrument.
If not accepted by the user within seven days, this invitation will be dropped.

Return

3. Vacuum Group Maintenance

The Vacuum Group Maintenance area works the same way as the Instrument Calibration area. The only difference is in the title of the area and its contents:

Please review the instructions for Instrument Calibration before using this section.

Final Note

If you have any questions about materials presented in this document, or general questions about Pansophy not addressed herein, please contact Shannah Whithaus, 757-269-7508. For technical questions or to have errors addressed and corrected, please call the on-call programmer listed at the bottom of each Pansophy page.